**Biology III – Quiz #1 Study Guide**

Be able to define and apply these terms:

Heterozygous

Homozygous

Dominant

Recessive

Genotype

Phenotype

Allele

Gene

Trait

Character

True-breeding

Hybrid

P, F1, F2 Generations

How does the process of meiosis give rise to 8.4 million(+) possible gamete types?

Describe the phenomena Mendel used to construct his principles of dominance.

Explain the Law of Segregation and give an example. What phenomena led Mendel to this concept?

Explain the Law of Independent assortment and give an example. What phenomena led Mendel to this concept?

What is a Punnet square and what can they be used for? Be able to complete Punnet Squares showing single trait crosses. Be able to interpret the ratios of phenotypes and genotypes in the offspring.